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ABSTRACT

1 In-circuit-emulation of an integrated circuit including
2 a digital data processor capable of executing program
3 instructions. A debug event detector detects predetermined
4 debug event. Upon detection of a debug event, the in-circuit-
5 emulator suspends program execution except for real time
6 interrupts. An emulation monitor program permitting visibility
7 into the state of the integrated circuit is run as such a real
8 time interrupt interrupt. The integrated circuit includes a
9 serial scan path for control of the state of the integrated
10 circuit, such as a JTAG interface. The in-circuit-emulation
11 selectively assigning emulation resources of the integrated
12 circuit to one of the serial scan path or the monitor program.
13 A monitor privilege input controls this assignment by its
14 digital state. The the emulation resource may be a read write
15 data register and he assignment includes accessing the data
16 register.